

Week No.	Week of...	Lecture reference [G=Griffiths, SCSR = Short Course in Special Relativity (handout), P=Pedrotti]	Topic	Exercises assigned
1	19-Jan	G 10.1.1 G 10.1.2-3	MARTIN LUTHER KING HOLIDAY Scalar and vector potentials Gauge invariance; Lorentz gauge	
2	26-Jan	↑ SCSR and	Special relativity Special relativity Special relativity	1-5 6-9
3	2-Feb	references given on its	Special relativity Special relativity Special relativity	10-15
4	9-Feb	last page ↓	Special relativity Special relativity Special relativity	16-20 21-25
5	16-Feb		PRESIDENTS' DAY HOLIDAY Fields of a moving point charge (relativistic approach) Retarded potentials	
6	23-Feb	G 10.3.1 (25-Feb) G 10.3.2	Liénard-Wiechert potentials <b>EXAM 1</b> [EM potentials and special relativity (exercises 1-25)] Fields of a moving point charge (retarded potential approach)	26-30
7	1-Mar	G 3.3.2, G3.4	Multipole expansion of the electrostatic potential Vector multipole expansion of the EM field	30-36
		G 11.1.1-4	NR multipole radiation	37-41
8	8-Mar	G 11.1.1-4 G 11.2.1 G 11.2.1	NR electric dipole radiation Radiation by a point charge Bremsstrahlung	
9	15-Mar	G 11.2.1 (17-Mar) P 14	Synchrotron radiation <b>EXAM 2</b> [special relativity, retarded potentials, multipole radiation (exercises 26-41)] Matrix analysis of polarization	42-47
	22-Mar		SPRING RECESS	
10	29-Mar	P 14; P 10,12 P 10,12	Matrix analysis of polarization Matrix analysis of polarization; interference and coherence	
		P 14; P 10,12 P 10,12	Interference and coherence	
11	5-Apr	P 10,12 P 11,19 P 11,19	Interference and coherence Multiple reflections Multiple reflections	
12	12-Apr	P 16 (14-Apr) P 16	Fraunhofer diffraction <b>EXAM 3</b> [radiation by a point charge, polarization] Fraunhofer diffraction	
13	19-Apr	P 17 P 25 P 25	Fraunhofer diffraction (grating) Fourier optics Fourier optics	
14	26-Apr	P 18 P 21,22 P 21,22	Fresnel diffraction Lasers Lasers	
15	3-May	P 21,22 (5-May) P 13	Holograms <b>EXAM 4</b> [interference, coherence, reflections, Fraunhofer diffraction, Fourier optics] Holograms	
16	10-May	---	Review INSTRUCTION ENDS	
17	17-May	(17-May)	110B FINAL EXAM (Group 6, 8-11 AM)	